

REMARKS

This is in response to the Office Action dated December 17, 2004. The Office Action rejected Claims 1-4, 11, 17-24 under 35 U.S.C. 102(b) and Claims 5-10 and 12-16 under 35 U.S.C. 103(a). The Office Action also rejected Claims 11-16 under 35 U.S.C. 112, second paragraph. Claims 25-32 are allowed. Claim 20 has been amended as above, and Claim 21 has been cancelled without prejudice or disclaimer. It is respectfully submitted that, as amended, all the pending claims are allowable.

Antecedent Support of Amendment

As amended, Claim 20 incorporates the feature of pivotal connection between the support arm and the aircraft body as claimed in Claim 21. The amended Claim 20 further incorporates the feature of “the auxiliary flow control being operative to **vertically deflect airflow** about the supporting arm to regulate orientation of the aircraft”.

The amendment was fully supported by the originally filed specification in lines 10-11 of paragraph [0029] in page 6. Therefore, no new matter has been added by the amendment made to Claim 20, and entry of the amendment is respectfully solicited.

Rejection Under 35 U.S.C. 112

The Examiner rejected Claims 11-16 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner further stated:

“Claim 11 does further limit claim 1”.

It is the Applicant's understanding that the Examiner actually considered that “Claim 11 does not further limit claim 1”.

In Claim 1, an auxiliary flow control surface pivotal relative to orientation of the support arm is claimed. However, Claim 1 does not specifically disclose the type of the pivotal relation. In Claim 11, the “pivotal relation” between the auxiliary flow control surface and the orientation of the support arm is further limited as the “deflection of the auxiliary flow control surface relative to orientation of the support arm. Therefore, the

subject matter of Claim 1 has been particularly and distinctly pointed out. The rejection over Claims 11-16 under 35 U.S.C. 112, second paragraph is thus respectfully traversed.

Rejection Under 35 U.S.C. 102(b)

The Cited Reference – Northrop (1929255)

Claims 1-3, 17-18, 20, 22, 23, 24 were rejected under 35 U.S.C. 102(b) as being anticipated by Northrop (1929255).

The Examiner further stated that “*Northrop shows arms 31 with auxiliary control surfaces 28. Wood is a low radar reflective material*”.

Northrop discloses an airplane having a stabilizer-controller assembly comprising the horizontal stabilizer 26, vertical stabilizer 27, elevator 28, and rudders 29 mounted on the tubular streamlined outriggers or booms 31 (lines 96-99 of the right column in page 2).

As disclosed in lines 71-80 of the right column in page 1, the stabilizing assembly (stabilizers 26, 27, elevator 28 and rudders 29) contribute little to the lift of the airplane, but add drag thereto. To minimize the parasite drag contributed by the stabilizing assembly required for achieving best aerodynamic form of the airplane, the stabilizing assembly is placed in a place where they operate in an air-stream undisturbed by other parts of the plane by the tail booms 31. The sole purpose of the tail booms 31, as understood, is to place the stabilizing assembly to such place.

Northrop does not suggest any other purpose of the tail booms 31 apart from placing the stabilizing assembly away from the plane. Therefore, it appears that the tail booms 31 are fixedly mounted to the plane body; that is, the orientation of the boom 31 is constant. Consequently, the stabilizing assembly disclosed by Northrop cannot be pivotal relative to the **orientation** of the tail boom (support arm) as claimed in Claims 1-19.

Therefore, the rejection over Claims 1-19 is respectfully traversed.

In Claims 20 and 22-24, the support arm has a first end pivotally connected to the aircraft body and a second end connected to the auxiliary flow control surface, and the auxiliary flow control surface is operative to vertically deflect the airflow.

As discussed above, Northrop discloses tail booms 31 to place the stabilizing assembly (stabilizers 26, 27, elevator 28 and rudders) to a position where the drag contributed thereby is minimized. Northrop fails to teach or suggest the support arm being

pivotaly connected to the aircraft body. Therefore, the rejection over Claims 20 and 22-24 is respectfully traversed.

The Cited Reference - De Rough (2120065)

Claims 1, 3-4, 11, 17-18, 20-21, 23-24 were further rejected under 35 U.S.C. 102(b) as being anticipated by De Rough (2120065).

The Examiner further stated that “*De Rough shows arm 26 pivotaly connected to the fuselage or wing with auxiliary control surfaces 43*”.

De Rough teaches a flying machine having a mast 26 connected to the flying machine at pivot 27. The mast 26 has flaps 30 and 31 (Figures 4 and 5). In another embodiment, De Rough teaches a flying machine having a mast 40 having flaps 42 and 43. However, De Rough specifically teaches that, at lines 6-9 of the right column in page 2, “Then, **independently of the inclination of the mast**, the adjustment of the flaps is solely effected by the driver of the flying machine.”

Therefore, De Rough teaches away “the auxiliary flow control surface being pivotal relative to **orientation** of the support arm” as claimed in Claims 1-19. The rejection over Claims 1-19 is thus respectfully traversed.

With regard to Claims 20 and 22-24, De Rough fails to teach “the auxiliary flow control surface being operative to **vertically deflect airflow** about the supporting arm” as claimed. Therefore, the rejection over Claims 20 and 22-24 is respectfully traversed.

The Cited Reference – Wooley (6224012)

Claims 1 and 19 were rejected under 35 U.S.C. 102(b) as being anticipated by Wooley (6224012).

The Examiner stated that “*Wooley shows arms 51 and ground engagement 53 on auxiliary surface*”.

Wooley discloses a roadable aircraft having a pair of tails 50 held in the up position by a pair of tail wheels 53 (col. 4, lines 60-61). The tail 50 has a tail boom 51 and a segmented rudder 54. It appears that the up-holding effect provided by the tail wheels 53 does not explicitly or inherently disclose the “pivotal relationship” between the wheels 53 and the orientation of tail boom.

Wooley further teaches a segmented rudder 54 in Figures 1C and 1D. Wooley also teaches that the rudder action is affected by tail positions (col. 7, lines 3-4). However, Such teaching does not provide any suggestion that the rudder 54 is pivotal relative to orientation of the tail boom 51. As Wooley fails to teach every element as claimed in Claims 1-19, and the rejection is respectfully traversed.

Rejection Under 35 U.S.C. 103(a)

Claims 5-10, 12-16 were rejected under 35 U.S.C. 103(a) as being unpatentable over De Rough in view of Beteille (4598888).

As discussed above, by specifically teaching **"independently of the inclination of the mast, the adjustment of the flaps is solely effected by the driver of the flying machine"**, De Rough teaches away "the auxiliary flow control surface being pivotal relative to orientation of the support arm" as claimed in Claim 1. Therefore, regardless what has been disclosed in Beteille, the combination of De Rough and Beteille still teaches away the pivotal relationship between the support arm and the auxiliary flow control surface as claimed in Claims 1-19.


Therefore, the rejection is respectfully traversed.

If any additional fee is required, please charge Deposit Account Number 19-4330.

Respectfully submitted,

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